

Grasping Nutrition Concepts

Following the Dietary Guidelines

The Dietary Guidelines for Americans, 2010, developed by the United States Department of Agriculture (USDA) and the Department of Health and Human Services (DHHS), provide general diet and lifestyle recommendations for healthy Americans ages 2 years and older, as well as those who are at increased risk of chronic disease, due to rising concern about the health of the American population. The recommendations accommodate the reality that a large percentage of Americans are overweight or obese and/or at risk of various chronic diseases. Try to follow these guidelines when planning menus for the children in your care and when making food choices for yourself.

BALANCING CALORIES TO MANAGE WEIGHT

Key Recommendations

- Prevent and/or reduce overweight and obesity through improved eating and physical activity behaviors.
- Control total calorie intake to manage body weight. For people who are overweight or obese, this will mean consuming fewer calories from foods and beverages.
- Increase physical activity and reduce time spent in sedentary behaviors.
- Maintain appropriate calorie balance during each stage of life—childhood, adolescence, adulthood, pregnancy and breastfeeding, and older age.

FOODS AND FOOD COMPONENTS TO REDUCE

Key Recommendations

- Reduce daily sodium intake to less than 2,300 milligrams (mg) and further reduce intake to 1,500 mg among persons who are 51 and older and those of any age who are African American or have hypertension, diabetes, or chronic kidney disease. The 1,500 mg recommendation applies to about half of the U.S. population, including children, and the majority of adults.
- Consume less than 10 percent of calories from saturated fatty acids by replacing them with monounsaturated and polyunsaturated fatty acids.
- Consume less than 300 mg per day of dietary cholesterol.
- Keep *trans* fatty acid consumption as low as possible, especially by limiting foods that contain synthetic sources of *trans* fats, such as partially hydrogenated oils, and by limiting other solid fats.
- Reduce the intake of calories from solid fats and added sugars.
- Limit the consumption of foods that contain refined grains, especially refined grain foods that contain solid fats, added sugars, and sodium.
- If alcohol is consumed, it should be consumed in moderation—up to one drink per day for women and two drinks per day for men—and only by adults of legal drinking age.

FOODS AND NUTRIENTS TO INCREASE

Key Recommendations

- Individuals should meet the following recommendations as part of a healthy eating pattern and while staying within their calorie needs.
- Increase vegetable and fruit intake.
- Eat a variety of vegetables, especially dark-green and red and orange vegetables and beans and peas.
- Consume at least half of all grains as whole grains. Increase whole-grain intake by replacing refined grains with whole grains.
- Increase intake of fat-free or low-fat milk and milk products, such as milk, yogurt, cheese, or fortified soy beverages.
- Choose a variety of protein foods, which include seafood, lean meat and poultry, eggs, beans and peas, soy products, and unsalted nuts and seeds.
- Increase the amount and variety of seafood consumed by choosing seafood in place of some meat and poultry.
- Replace protein foods that are higher in solid fats with choices that are lower in solid fats and calories and/or are sources of oils.
- Use oils to replace solid fats where possible.
- Choose foods that provide more potassium, dietary fiber, calcium, and vitamin D, which are nutrients of concern in American diets. These foods include vegetables, fruits, whole grains, and milk and milk products.

Key Recommendations for Specific Population Groups

- ***Women capable of becoming pregnant***
 - Choose foods that supply heme iron, which is more readily absorbed by the body, additional iron sources, and enhancers of iron absorption such as vitamin C-rich foods.
 - Consume 400 micrograms (mcg) per day of synthetic folic acid (from fortified foods and/or supplements) in addition to food forms of folate from a varied diet.
- ***Women who are pregnant or breastfeeding***
 - Consume 8 to 12 ounces of seafood per week from a variety of seafood types.
 - Due to their methyl mercury content, limit white (albacore) tuna to 6 ounces per week and do not eat the following four types of fish: tilefish, shark, swordfish, and king mackerel.
 - If pregnant, take an iron supplement as recommended by an obstetrician or other health care provider.
- ***Individuals ages 50 years and older***
 - Consume foods fortified with vitamin B12, such as fortified cereals, or dietary supplements.



BUILDING HEALTHY EATING PATTERNS

Key Recommendations

- Select an eating pattern that meets nutrient needs over time at an appropriate calorie level.
- Account for all foods and beverages consumed and assess how they fit within a total healthy eating pattern.
- Follow food safety recommendations when preparing and eating foods to reduce the risk of food borne illnesses.

HELPING AMERICANS MAKE HEALTHY CHOICES

2010 Dietary Guidelines' Call to Action

- Ensure that all Americans have access to nutritious foods and opportunities for physical activity.
- Facilitate individual behavior change through environmental strategies.
- Set the stage for lifelong healthy eating, physical activity, and weight management behaviors.

Summary

The science-based advice of the *Dietary Guidelines for Americans*, 2010, shares how to:

- Make smart choices from every food group.
- Find your balance between food and physical activity.
- Get the most nutrition out of your calories.

You may be eating plenty of food, but not eating the right foods that give your body the nutrients you need to be healthy. You may not be getting enough physical activity to stay fit and burn those extra calories. The *Dietary Guidelines for Americans* will help you find your way to a healthier you.

Eating right and being physically active aren't just a "diet" or a "program"—they are keys to a healthy lifestyle. With healthful habits, you may reduce your risk of many chronic diseases such as heart disease, diabetes, osteoporosis, and certain cancers, and increase your chances for a longer life.

For more information about the Dietary Guidelines, visit

<http://www.health.gov/DietaryGuidelines>.

Using MyPlate

ChooseMyPlate.gov

USDA's MyPlate, shown below, symbolizes a personalized approach to healthy eating. The symbol has been designed to *remind* Americans to eat healthfully; it is not intended to change consumer behavior alone. The messages in MyPlate mirror the messages of the *Dietary Guidelines for Americans, 2010*, and illustrate the five food groups using a familiar mealtime visual, a place setting.



- Five food groups are represented on the plate: fruits, vegetables, grains, protein and dairy.
- The portions are not equal. This represents how much of the meal should go to each food group.
- The symbol shows that half of the plate should be fruits and vegetables.
- The plate itself, as well as the division of portions signifies the importance of portion control.

ChooseMyPlate.gov

The website features practical information and tips to help Americans build healthier diets.

Selected messages for Consumers:

Balancing Calories

- Enjoy your food, but eat less.
- Avoid oversized portions.

Foods to Increase

- Make half your plate fruits and vegetables.
- Switch to fat-free or low-fat (1%) milk.
- Make at least half your grains whole grains.

Foods to Reduce

- Compare sodium in foods like soup, bread, and frozen meals—and choose foods with lower numbers.
- Drink water instead of sugary drinks

www.choosemyplate.gov includes much of the consumer and professional information formerly found on MyPyramid.gov.

USDA United States Department of Agriculture

ChooseMyPlate.gov
OMB Number 0584-0535

Home About Us News & Media Site Help Contact Us

Search website
Go

Subjects

- The Basics
 - Food Groups
 - Tips & Resources
 - Print Materials
 - Interactive Tools
- Specific Audiences
 - General Population
 - Pregnant & Breastfeeding
 - Preschoolers
 - Kids
 - Weight Loss
- Multimedia
- For Professionals
- Partnering Program
- Related Links
- Questions?

I Want To...

- Look up a food
- Learn about food groups
- Get a personalized Plan
- Learn healthy eating tips
- Get weight loss information
- Plan a healthy menu
- Analyze my diet
- Ask a question

Tip of the Day
Cook together. Eat together. Talk together. Make mealtime a family time!
[Click here for more tips](#)

10 tips
Nutrition Education Series

Balancing Calories

- Enjoy your food, but eat less.
- Avoid oversized portions.


Foods to Increase

- Make half your plate fruits and vegetables.
- Make at least half your grains whole grains.
- Switch to fat-free or low-fat (1%) milk.


Consumer Resources

The 2010 Dietary Guidelines brochure: *Let's Eat for the Health of It*


This brochure contains practical strategies to make healthy food choices. The Brochure highlights themes from the Guidelines such as *Balancing Calories*, *Foods to Reduce*, and *Foods to Increase*. This resource is available online as a PDF and print copies will be available in the near future.




**Let's eat
for the health of it**




Start by choosing one or more tips to help you...




**Build a
healthy plate**



**Cut back on
foods high in solid
fats, added sugars,
and salt**



**Eat the right
amount of
calories for you**



**Be physically
active your way**

10 Tips Series

The 10 Tips Nutrition Education Series provides consumers and professionals with easy-to-follow tips in a convenient, printable format. Educators can use these to support existing lessons and consumers can choose one or more of these tips sheets to start making small changes toward healthier eating.

- Choose MyPlate
- Focus on fruits
- Got your dairy today?
- Build a healthy meal
- Smart shopping for veggies and fruits
- Kid-friendly veggies and fruits
- Cut back on your kid's sweet treats
- Add more vegetables to your day
- Make half your grains whole
- With protein foods, variety is key
- Healthy eating for vegetarians
- Liven up your meal with vegetables
- Be a healthy role model for children
- Salt and sodium

The 10 Tips Series sheets can be found at www.choosemyplate.gov. Below is an example of the first in this series-Choose MyPlate.

10 tips
Nutrition
Education Series

choose MyPlate
10 tips to a great plate



ChooseMyPlate.gov

Making food choices for a healthy lifestyle can be as simple as using these 10 Tips.
Use the ideas in this list to *balance your calories*, to choose foods to *eat more often*, and to cut back on foods to *eat less often*.

1 balance calories
Find out how many calories YOU need for a day as a first step in managing your weight. Go to www.ChooseMyPlate.gov to find your calorie level. Being physically active also helps you balance calories.

6 switch to fat-free or low-fat (1%) milk
They have the same amount of calcium and other essential nutrients as whole milk, but fewer calories and less saturated fat.



2 enjoy your food, but eat less
Take the time to fully enjoy your food as you eat it. Eating too fast or when your attention is elsewhere may lead to eating too many calories. Pay attention to hunger and fullness cues before, during, and after meals. Use them to recognize when to eat and when you've had enough.



7 make half your grains whole grains
To eat more whole grains, substitute a whole-grain product for a refined product—such as eating whole-wheat bread instead of white bread or brown rice instead of white rice.

3 avoid oversized portions
Use a smaller plate, bowl, and glass. Portion out foods before you eat. When eating out, choose a smaller size option, share a dish, or take home part of your meal.

8 foods to eat less often
Cut back on foods high in solid fats, added sugars, and salt. They include cakes, cookies, ice cream, candies, sweetened drinks, pizza, and fatty meats like ribs, sausages, bacon, and hot dogs. Use these foods as occasional treats, not everyday foods.

4 foods to eat more often
Eat more vegetables, fruits, whole grains, and fat-free or 1% milk and dairy products. These foods have the nutrients you need for health—including potassium, calcium, vitamin D, and fiber. Make them the basis for meals and snacks.



9 compare sodium in foods
Use the Nutrition Facts label to choose lower sodium versions of foods like soup, bread, and frozen meals. Select canned foods labeled "low sodium," "reduced sodium," or "no salt added."



5 make half your plate fruits and vegetables
Choose red, orange, and dark-green vegetables like tomatoes, sweet potatoes, and broccoli, along with other vegetables for your meals. Add fruit to meals as part of main or side dishes or as dessert.



10 drink water instead of sugary drinks
Cut calories by drinking water or unsweetened beverages. Soda, energy drinks, and sports drinks are a major source of added sugar, and calories, in American diets.

Understanding Nutrition

Many different nutrients are needed for good health. These include **carbohydrates, fat, protein, vitamins, minerals and water**. Most foods contain more than one nutrient.

The amount of energy that can be provided by a food is measured in calories. Carbohydrates, fat and protein provide calories to the body. If a person does not eat enough calories, the body uses protein and fat stores for energy. Eating too many calories will result in weight gain. The number of calories from a food depends on how much protein, carbohydrates and fat are present.

Descriptions of the six nutrients follow.

Carbohydrate

Foods supply carbohydrate in three forms: sugars, starches and dietary fiber. One gram of carbohydrate provides four calories.

Sugars contribute calories but few vitamins and minerals. There are many different types of sugars. They include: brown sugar, cane sugar, corn sweetener, corn syrup, dextrose, fructose, glucose, high fructose corn syrup, honey, invert sugar, lactose, malt syrup, maltose, maple syrup, molasses, sucrose and sugar syrup.

Starch is a major source of energy. Sources of starch are: grains (wheat, oats, corn, rice, etc.) and products made from grains such as flour, pasta, breads and cereals. Vegetables such as potatoes, sweet potatoes, dry beans and dry peas are also sources of starch.

Dietary fiber is present in plant foods. It is not broken down during digestion. Eating fiber-containing foods, such as fruits, vegetables and whole grains promotes proper bowel function. Dietary fiber provides bulk for stool formation and prevents constipation.

Consumption of dietary fiber may help satisfy the appetite by creating a satisfying full feeling. Eating plenty of fruits, vegetables and whole grain foods as part of a healthy eating pattern may also help protect against some chronic diseases.

Sources of dietary fiber are vegetables, fruit, dry beans and peas, and whole grain products such as brown rice, bulgur, whole grain corn, oatmeal, popcorn, pearl barley, whole oats, whole rye and whole wheat.

See the chapter, “Healthy Recipe Modification”, for tips on increasing dietary fiber.



Fat

Fats supply energy and essential fatty acids. Fats are the most concentrated energy source in the diet. They provide nine calories of energy per gram, twice as many calories per gram as provided by protein or carbohydrate.

The foods you eat should contain some fat. Fats are required for brain development, vision and the formation of some hormones. Fatty acids are carriers of the fat-soluble vitamins (vitamins A, D, E and K).

The Dietary Guidelines for Americans recommend that 30 to 40% of a diet's total calories come from fat for children 1 to 3 years of age and between 25 to 35% of total calories for children and adolescents 4 to 18 years of age, with most fats coming from sources of polyunsaturated and monounsaturated fatty acids, such as fish, nuts, and vegetable oils. The Dietary Guidelines for Americans for Americans also recommend to consume less than 10% of calories from saturated fatty acids and less than 300 mg/day of cholesterol, and keep *trans* fatty acid consumption as low as possible.

Saturated fatty acids are present in many foods. Animal foods contain more saturated fats than plants. Foods high in saturated fats tend to raise blood cholesterol. These foods include high fat dairy products (cheese, whole milk, cream butter, and regular ice cream), fatty fresh and processed meats, skin and fat of poultry, lard, palm oil and coconut oil. Keep your intake low for these foods.

Products containing hydrogenated vegetable oils, such as shortening and stick margarine, may contain *trans* fatty acids. *Trans* fatty acids act like saturated fatty acids in that they tend to raise blood cholesterol. Other foods that may contain hydrogenated oils include commercially fried foods and baked products (cookies, crackers, muffins, snack foods, chips, pie crust, French fries, doughnuts, etc.)

Unsaturated fats are liquid at room temperature. Unsaturated fats (oils) do not raise blood cholesterol. Unsaturated fats occur in vegetable oils, most nuts, olives, avocados, and fatty fish like salmon. Monounsaturated and polyunsaturated oils are both unsaturated fats. Olive, canola and peanut oils are high in monounsaturated fatty acids. Polyunsaturated fats are found in soybean oil, corn oil, cottonseed oil and many kinds of nuts. Some fish, such as salmon, tuna, and mackerel, contain omega-3 fatty acids that are being studied to determine if they offer protection against heart disease. Use moderate amounts of food high in unsaturated fats. Avoid excess calories.



Key Recommendations from the Dietary Guidelines:

- *Keep total fat between 30 to 40% of calories for children 1 to 3 years of age and between 25 to 35% of calories for children and adolescents 4 to 18 years of age, with most fats coming from sources of polyunsaturated and monounsaturated fatty acids, such as fish, nuts, and vegetable oils.*
- *Consume less than 10% of calories from saturated fatty acids and less than 300 mg/day of cholesterol, and keep trans fatty acid consumption as low as possible.*

Total Daily Calories	Fat (30-40% of calories for children 1 to 3 years of age)	Fat (25-35% of calories for children and adolescents 4 to 18 years of age)	Saturated Fat (less than 10% of calories)
1000 calories	33-44 grams	28-39 grams	<11 grams
1500 calories	50-66 grams	42-58 grams	<16 grams
2000 calories		56-78 grams	<22 grams
2500 calories		69-97 grams	<27 grams

Cholesterol is a fat-like substance found in humans and animals. Foods that are high in cholesterol also tend to raise blood cholesterol. These foods include liver and other organ meats, egg yolks, and dairy fats. In addition to getting cholesterol from food, our bodies make cholesterol.

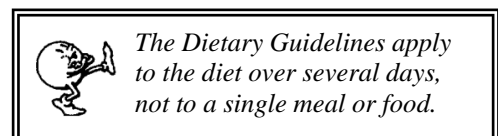
For information on fat content in foods, see the section, “Understanding Food Labels: What’s in a Food?” Also, for information on reducing fat in recipes or menus, see the section, “Healthy Recipe Modification”.

Protein

Proteins are made of amino acids and are needed for growth, maintenance and replacement of body tissues. They also form the hormones and enzymes used to regulate body processes. Each gram of protein provides four calories of energy. Excess protein may be used by the body for energy or stored as body fat.

Vitamins

Vitamins are substances needed by the body in very small amounts. Many chemical reactions in the body depend on vitamins. They help release energy from carbohydrate, fat and protein.



Minerals

Minerals are needed in small amounts. Calcium, phosphorus and fluoride are used to build strong bones and teeth. Iron is used to make hemoglobin in red blood cells. Iodine is used to make thyroid hormone. Minerals maintain body fluids and chemical reactions.

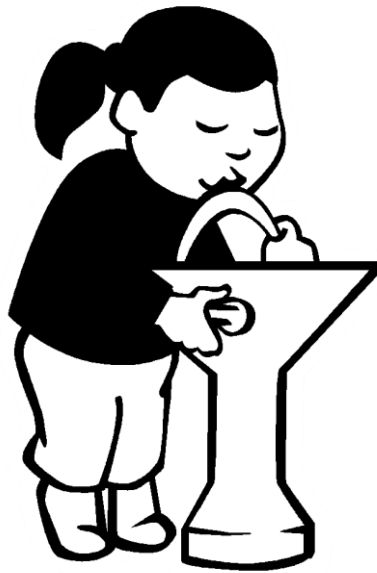
The *Dietary Guidelines* suggest that you choose and prepare foods with little salt. Most of the salt you eat comes from foods that have salt added during food processing or during preparation in a restaurant or at home.

Salt is the main source of sodium in foods. Table salt contains sodium and chloride. Both minerals are needed only in small quantities by the body. Too much sodium has been related to high blood pressure.

For information on reducing sodium in recipes, see the section, “Healthy Recipe Modification”.

Water

Water is needed to replace body water lost in urine and sweat. It helps transport nutrients, removes waste and regulates body temperature. Water is an important part of an adequate diet.



Nutritive Value of Foods

To include the greatest amount of nutrients and meet the Dietary Guidelines for Americans, choose a variety of foods for each meal throughout the week. Some foods provide more nutrients than others. A food may be a good source of some vitamins and minerals, but still lack other important ones. A “perfect” food with all essential nutrients does not exist. Also, by regularly serving a variety of foods, children will not become bored with the foods offered and will learn healthy food habits.

Examples of foods that are sources of various nutrients are listed below.

Food groups referenced are based on CACFP meal pattern components. Examples provided are creditable foods.

Protein

Protein is important for the continued growth, regulation and maintenance of the body’s tissues. Some examples of foods that are sources of protein include:

Meat/Meat Alternates: lean beef, low-fat cheeses, dry beans, dry peas, fish, lentils, nuts, nut butters, eggs, lean pork, poultry, low-fat yogurt

Milk: fluid low-fat or fat-free milk

Vegetables: dry beans, dry peas



Fiber

Fiber promotes the elimination of the body’s waste. Eating plenty of fiber rich foods as part of a healthful eating pattern may help protect against chronic diseases. It also satisfies the appetite by creating a full feeling.

Foods that are sources of fiber include:

Fruits: apples, bananas, blueberries, cantaloupe, cherries, peaches, pears, prunes, oranges, raspberries, strawberries



Vegetables: broccoli, carrots, cauliflower, celery, corn, green beans, peppers, potatoes, tomatoes

Grains/Breads: whole grain products (made from whole grain corn, whole oats, whole rye, or whole wheat), brown rice, bulgur, oatmeal, pearl barley

Meat/Meat Alternates: dry beans, dry peas, lentils

Iron

Iron

Iron is a mineral that functions primarily as a carrier of oxygen in the body, both in the blood and muscles.

Sources of iron include:

Meat/Meat Alternates: dry beans, dry peas, eggs, lean meat, and poultry

Grains/Breads: whole grain, fortified or enriched breads and cereals

Vegetables: dark green leafy vegetables, dry beans, dry peas, lima beans



Calcium

Calcium, a mineral, is important for the growth and maintenance of bones and teeth. It is also necessary for muscle contraction, blood clotting, and maintenance of cell membranes.

Food sources of calcium include:

Milk: fluid low-fat milk

Vegetables: broccoli, spinach, turnip greens, collards

Fruits: oranges, calcium-fortified orange juice

Meat/Meat Alternates: low-fat cheeses, low-fat yogurt, canned salmon or sardines

Grains/Breads: calcium fortified breads and breakfast cereals (read the label).

Vitamin C

Vitamin C, a water soluble vitamin, is important in the formation of collagen, a protein that gives structure to bones and muscles. Vitamin C also aids in the absorption of iron. It is an antioxidant.

Foods sources of vitamin C include:

Fruits: cantaloupe, citrus fruits and juices (grapefruit, orange, etc.), kiwi, pineapple, strawberries, raspberries, watermelon



Vegetables: asparagus, broccoli, cabbage, cauliflower, kale, peppers, sweet potatoes, tomatoes, romaine lettuce, spinach, and mustard greens.

Vitamin A

Vitamin A, a fat soluble vitamin, is important for the formation and maintenance of healthy skin, hair, and mucous membranes. Vitamin A helps people see in dim light.

Food sources of vitamin A include:

Fruits: cantaloupe, mandarin oranges, mangos, nectarines, peaches, plums

Vegetables: broccoli, carrots, greens, kale, pumpkin, spinach, winter squash, sweet potatoes, tomatoes, snow peas

Meat/Meat Alternates: liver, whole eggs, low-fat yogurt

Milk: fluid low-fat or fat-free milk



Vitamin E

Vitamin E, a fat soluble vitamin, is an antioxidant. It stabilizes cell membranes and regulates oxidation reactions.

According to the Institute of Medicine (2000), most Americans consume enough vitamin E to meet recommendations because it is abundant in foods. The best sources of vitamin E are vegetable oils--for example, soybean, corn, cottonseed, and safflower. That includes margarine, salad dressing, and other foods made from oil. Nuts (especially almonds and hazelnuts), seeds (especially sunflower seeds), and wheat germ. All of these are high in oil. Green, leafy vegetables provide smaller amounts.

Folate

Folate, a water soluble B vitamin, helps the body form red blood cells and aids in the formation of genetic material in cells.

Food sources of folate include:

Meat/Meat Alternates: black-eyed peas, lentils, liver, red kidney beans

Vegetables: leafy green vegetables such as spinach and mustard greens, romaine lettuce, green peas

Grains/Breads: whole grain bread products, fortified ready-to-eat cereals



Fruits: oranges, orange juice, tangerines, melons, plums, raspberries, strawberries

B Vitamins

Other B vitamins include: thiamin, riboflavin, niacin, vitamin B₆ and Vitamin B₁₂. These B vitamins have important roles in converting food to energy for the body during metabolism,

Vitamin B₁₂ is found only in animal-based foods or Vitamin B₁₂ fortified foods. Food sources of B vitamins include:

Grains/Breads: Enriched and fortified bread and cereal products are good sources for thiamin, riboflavin and niacin.



Meat/Meat Alternates: Lean pork products, dry beans and peas are good sources for thiamin; liver contains riboflavin; and poultry and fish are good sources for niacin.

Milk: Fluid low-fat or fat-free milk is a good source of riboflavin.

Foods Higher in Fat, Salt, and Sugar

The following are some common foods that may be higher in fat, sugar and/or salt. These foods may be consumed in moderation.

Foods that are higher in fat:		Foods that are higher in salt:		Foods that are higher in sugar:	
cream soups	granola bars	barbecue sauce	pickles	soft drinks	fruitades/fruit punch
full fat cheese	organ meats	canned soups	relish	cakes	pre-sweetened cereals
pie crust	snack crackers	canned vegetables	bouillon	pastries	cookies and. bars
croissants	salad dressing	processed cheese	catsup	granola bars	toaster pastries
Danish rolls	processed meats	meat tenderizer	salted nuts	sweet rolls	flavored milk
bacon/sausage	butter/margarine	luncheon meats	soy sauce	doughnuts	pie filling
cakes/cookies	lard/shortening	cured meats	mustard	candy	dairy desserts
cheese	fried foods	salad dressing	salted pretzels		
ice cream	whole milk	potato/tortilla chips	steak sauce		



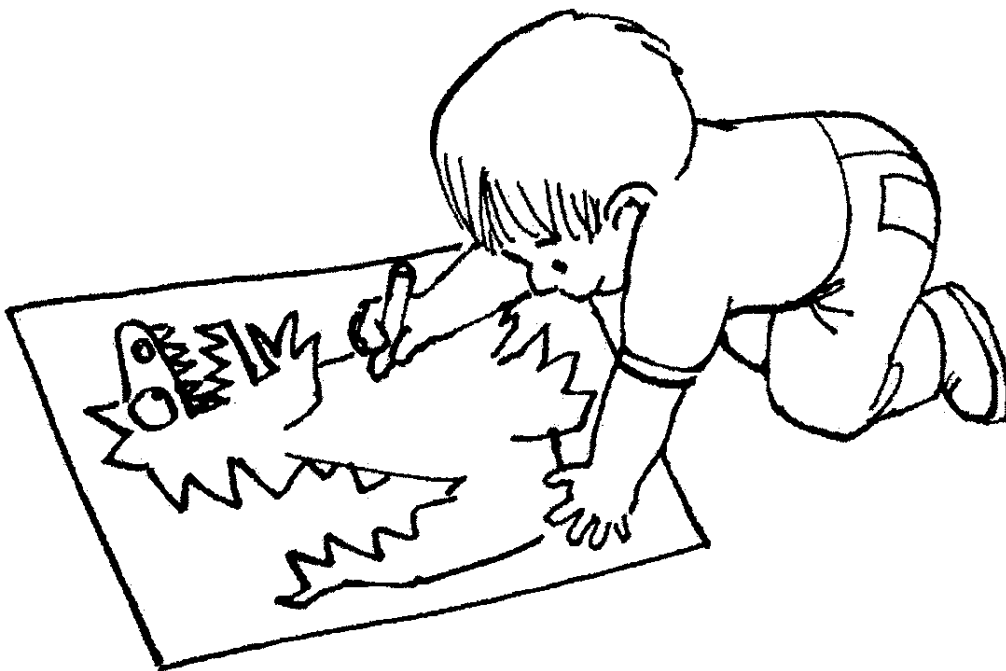
Sample Menus

Planning menus means more than just thinking of foods that taste good together. The nutritive value of foods must be considered.

On the next page is a sample of menus for five days including breakfast, morning snack, lunch, afternoon snack and supper. These menus follow the *Dietary Guidelines* and meet the Child and Adult Care Food Program meal pattern requirements for children 3-5 years old. Meal pattern requirements are listed in "Crediting Foods."

The *Dietary Guidelines* apply to the diet over several days, not to a single meal or food. Therefore, many meals must be included when determining if the *Dietary Guidelines* are being followed.

Computer programs that analyze the nutritional values of meals are available if you would like to evaluate menus. Using one of these computer programs, a nutrient analysis of the sample weekly menu shows that no more than 25 to 35% of calories come from fat and less than 10% of calories come from saturated fat.



Sample Menus for Children (ages 3-5)					
Requirements	1st Day	2nd Day	3rd Day	4th Day	5th Day
Breakfast grains/breads (including cereal) juice or fruit or vegetable milk, fluid	oatmeal (1/4 c) with sugar (1 tsp or less) orange juice (1/2 C) low-fat milk (3/4 c)	waffle (0.6 oz) fresh peach slices (1/2 c) low-fat milk (3/4 c)	raisin bran cereal (1/3 c) grapefruit juice (1/2 c) *whole wheat toast (1/2 slice) low-fat milk (3/4 c)	Banana bread (1 slice) melon balls (1/2 c) low-fat milk (3/4 c)	whole wheat toast (1/2 slice) *scrambled egg (1/4 c) mixed fresh fruit (1/2 c) low-fat milk (3/4 c)
AM Snack (select 2 of 4) milk, fluid juice or fruit or vegetable grains/breads meat or meat alternate	fresh nectarines (1/2 c) cinnamon-raisin toast (1/2 slice) water (1/2 c)	bran muffin (1 oz) low-fat milk (3/4 c)	grape juice (1/2 c) English muffin (1/2 muffin) *1 tsp margarine *1 tsp jelly	yogurt (1/2 c) peaches (1/2 c) water (1/2 C) .	apple juice (1/2 c) banana nut muffin (1 oz)
Lunch meat or meat alternate vegetables and/or fruits (2 or more) grains/breads milk, fluid	turkey (1 oz) and Swiss cheese (0.5 oz) on whole wheat bread (1 slice) * thin slice tomato *1/4 leaf lettuce oven baked fries (1/4 c) strawberries (1/4 c) low-fat milk (3/4 c)	ground turkey chili with beans(1 .5 oz beef and beans, 1/4 c tomato) *brown rice (1/4 c or less) cornbread (1 slice) pear halves (1/4 c) low-fat milk (3/4 c)	grilled chicken (1.5 oz) whole wheat bun (0.5 oz) peas (1/4 c) applesauce (1/4 c) low-fat milk (3/4 c)	tuna salad (1.5 oz tuna) whole wheat bread (1 slice) coleslaw (1/4 c) blueberries (1/4 c) low-fat milk (3/4 C)	hamburger (1 oz beef) with cheese (0.5 oz) whole wheat bun (0.5 oz) *1/4 lettuce leaf *thin slice tomato green beans (1/4 c) canned pineapple (1/4 C) low-fat milk (3/4 C)
PM Snack (select 2 or 4) milk, fluid juice or fruit or vegetable grains/breads meat or meat alternate	*apple sections (2-3) granola cookie (1 oz) low-fat milk (3/4 c)	banana (1/2 c) graham crackers (2 squares) water (1/2 C)	orange sections (1/2 c) bagel (1/2 bagel) water (1/2 c)	Broccoli cauliflower (1/2 C) *low-fat veggie dip (1 Tbsp or less) saltine crackers(4) Water (1/2 c)	applesauce (1/2 c) melba toast (0.4 oz) water (1/2 c)
Supper meat or meat alternate vegetables and/or fruits (2 or more) grains/breads milk, fluid	Whole wheat spaghetti (1/4c) meat balls (1.5 oz beef) tomato sauce (1/4 c) *grated Parmesan cheese (1 tsp) green beans (1/4 c) Italian bread (0.5oz) *1 tsp margarine low-fat milk (3/4 C)	baked chicken (1.5 oz) cooked broccoli (1/4 c) mashed potatoes (1/4 c) whole wheat roll (0.5 oz) *1 tsp margarine low-fat milk (3/4 c)	breaded fish fillet (1.5 oz fish) cooked carrots (1/4 c) boiled potato (1/4 c) cracked wheat roll (0.5 oz) low-fat milk (3/4 c)	chicken tacos (1 oz chicken and 0.5 oz cheese) lettuce & tomatoes (1/4 c) taco shell (0.5 oz) corn (1/4 c) fruit cocktail (1/4 c) low-fat milk (3/4 c)	roast pork (1.5 oz) corn (1/4 c) mixed greens (1/4 c) with 1 Tbsp buttermilk dressing whole wheat roll (0.5 oz) low-fat milk (3/4 c)

*Food items served in addition to the required components of the CACFP meal pattern to increase variety, appeal, nutrient content and calories.

Vegetarian Diets

Vegetarian diets omit meat or all animal products.

There are many different types of vegetarian diets.

- vegan (pure vegetarian): will not eat any foods of animal origin
- lacto-vegetarian: will consume milk, yogurt and cheese products but will not consume other animal foods
- lacto-ovo-vegetarian: will consume milk, milk products and eggs, but not meat
- pesco-vegetarian: will consume milk, yogurt, cheese products, eggs and fish, but not any other animal foods

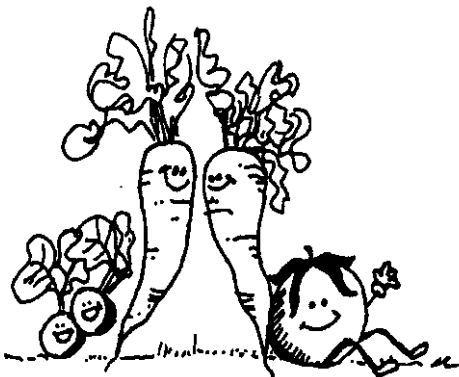
If These Foods Are Excluded	These Are Limited	Include These Foods If Possible*
Meat, fish, poultry	Protein, Iron, energy, zinc, folate, vitamin B12, thiamin, essential fatty acids	Milk, dairy products, grains, legumes
Milk, dairy products	Protein, energy, calcium, vitamin B12, vitamin D, riboflavin	Legumes, soy-milk (fortified), dark green vegetables

*There are no perfect substitutes for animal foods. Because nutrients may be lacking in diets where meat is not consumed, these foods are recommended to replace some of the nutrients.

**Use of soy milk in the CACFP requires a statement signed by a medical authority.

Whenever food choices are limited, it is more difficult to meet the body's needs for energy and essential nutrients.

Vegetarian diets specifically may lack calories, protein, essential fatty acids, calcium, iron, zinc, riboflavin, vitamin B₁₂ or vitamin D. A child's growth and development may be stunted when food energy is less than needed.



Vegetarian diets may be accommodated within the Child and Adult Care Food Program meal pattern. For example, dry beans can be served in place of meat. A registered dietitian, sponsor or State agency can provide more information on feeding children who are vegetarians.

Dental Health

Nutrition plays an important role in the development of healthy teeth. To promote dental health:

- Eat foods rich in calcium and phosphorus.
- Choose beverages and food to moderate your intake of sugars.
- Eat a variety of firm, fibrous foods to stimulate the release of saliva.
- Brush teeth or rinse mouth thoroughly with water after eating.
- Brush and floss teeth daily.

Physical Activity

Physical activity is important for maintaining good health. It burns calories, aids in weight control and helps prevent some chronic diseases. Strength, flexibility, and heart and lung fitness can be improved by participating in physical activities.

There are many types of exercise that children enjoy. Because younger children may not have skills needed for organized sports, active games are usually the best form of exercise. Younger children love to dance or play games such as “tag,” “follow the leader,” “catch” or “duck, duck, goose.”

Older children have better developed motor skills. They can participate in many activities including cycling, skating, swimming or team sports.

Try to encourage all children to exercise and participate in a variety of activities. Aim to accumulate at least 30 minutes (adults) or 60 minutes (children) of moderate-intensity physical activity on most, preferably all days of the week. Success in physical activities and being part of a group can help build a child’s self-esteem while maintaining good health.



Drug and Nutrient Interaction

Medications should be taken only as prescribed by a child’s physician. Some medications may affect the body’s use of foods. Other times, foods may interfere with a medicine’s effectiveness in the body.

If a child is taking medication, ask the parent to provide information or ask a registered pharmacist at a hospital or local drug store about restrictions.

Children with Special Nutrition Needs



Child care personnel should never diagnose health conditions; prescribe the nutritional requirements; nor revise, change or interpret diet statements. More information than that provided here will be needed to care for children with special needs.

Overweight and Underweight Children

It is important that growing children have healthy diets. Children must eat enough food to allow for adequate height and weight gain.

The diets of children who are overweight or underweight may need careful planning and monitoring. Foods, and the amounts served, must be selected wisely. Physical activity is an important component in maintaining proper weight.

Overweight Children

Overweight children should not be put on strict weight-loss diets. Children should be fed enough food to maintain a constant weight. By doing this, children can safely “grow out” of their overweight condition.

Diets that are too restrictive may be harmful to children. However, it is a good practice to limit the consumption of snack foods that are high in calories, fat and/or sugar, such as potato chips or cookies. Fruits or vegetables are healthier choices for snacks.

Special weight-loss diets for children who are overweight should only be prescribed by a physician or other medical authority.

Underweight Children

Many children are underweight for a short period of their childhood when they are “sprouting up.” With time, their weight will catch up to their height.

Underweight children can safely gain weight, while staying physically active, by increasing caloric intake. Rather than increasing high-fat, high sugar foods, add nutrient dense foods to the diet to increase calories.

Food Allergies and Food Intolerances

A food allergy is a reaction of the body’s immune system to something in a food or an ingredient in a food, often a protein. Symptoms include: wheezing, runny nose,

bronchitis, vomiting, diarrhea, rashes, itching and headaches. A food intolerance is an adverse reaction to a food substance or additive that involves digestion or metabolism, but does not involve the immune system.

Food allergies are most common in infants, due to their immature digestive systems. Infant food allergies are usually outgrown during a child's preschool years.

Foods which cause allergic reactions can be eliminated from the diet. However, it is important that the diet still contain a variety of foods for healthy growth and development. The most common food allergies in children are milk, eggs, wheat, soy, fish, shellfish, tree nuts and peanuts.

Information about food allergies and food intolerances should be provided by the child's parent(s) and supported by a physician's statement.

Children may be sensitive to the following foods or ingredients:

- **flour and baked products:** The consumption of flour and baked products must be carefully watched in persons who are gluten intolerant (Celiac disease). Gluten is a protein found in wheat, oats, rye and barley.
- **tartrazine** (food color, Yellow Number 5): An allergic reaction may result from the consumption of foods such as orange drinks, dry mix macaroni and cheese, and salad dressing that contain tartrazine.
- **sulfites:** Individuals with asthma may be sensitive to sulfites. Sulfites are often added to dried fruit and vegetables.
- **lactose:** Lactose, commonly referred to as "milk sugar," is found in milk and milk products containing milk or milk solids. Persons with lactose intolerance lack the enzyme needed for the digestion of lactose. Some non-dairy foods may include ingredients that contain lactose. Look for the words lactose, whey, nonfat milk solids, and sweet or sour cream. Some baked and processed foods may contain lactose. African-Americans, Native Americans and Asians are particularly susceptible to lactose intolerance.
- **casein:** Some individuals may be sensitive to casein, a milk protein. In addition to milk, casein may be found in canned tuna, non-dairy creamers and baked goods such as crackers. Look for the words lactose, whey, nonfat milk solids, and sweet or sour cream.
- **peanuts and tree nuts:** Nuts may cause severe reactions in individuals allergic to them. It is important to read labels carefully.

Diabetes

Special diets may be prescribed by a physician for persons who are diagnosed with diabetes. Diabetes is a disorder in which the body is unable to produce or respond to insulin. There are two forms.

Children may suffer from Type I or insulin dependent diabetes mellitus. This requires insulin injections. Nutrition plays an important role in the control of Type I diabetes.

The second form of diabetes, Type II or non-insulin dependent diabetes is common in adults. However, increasing numbers of children are being diagnosed with this form of diabetes because of the increased number of overweight children. Overweight is the major nutritional risk for developing this disease.



Iron Deficiency

Iron deficiency is most common in inner cities and rural areas. Individuals with iron deficiency may appear to be tired, unmotivated and apathetic. Iron deficiency may be caused by an inadequate intake of iron, poor absorption of iron or severe blood loss.

Some sources of iron include fortified bread and cereals, meat, dry beans and dark green leafy vegetables. Iron absorption increases when a good source of vitamin C is eaten at the same time as an iron-rich food. A high fiber intake, tea, coffee and some antacids can decrease iron absorption.

Children with Oral Motor Problems

Children with oral motor problems may need special equipment and/or assistance with eating. Food texture often will need to be modified. Physicians or other medical authorities will be able to provide guidance about obtaining special equipment and preparing special foods.

Developmental Disabilities

A child with developmental disabilities may or may not be able to eat foods recommended for his or her age group. Foods appropriate for younger children may be required or textures of foods may need to be modified. The child may need assistance with eating and may require longer meal service times so that an adequate amount of food is eaten. Some children with developmental disabilities may need to be tube fed.

Inherited Metabolic Disorders

Inherited metabolic conditions include phenylketonuria (PKU), maple syrup urine disease, homocystinuria and galactosemia. Physicians will prescribe special diets for

children who have these conditions.

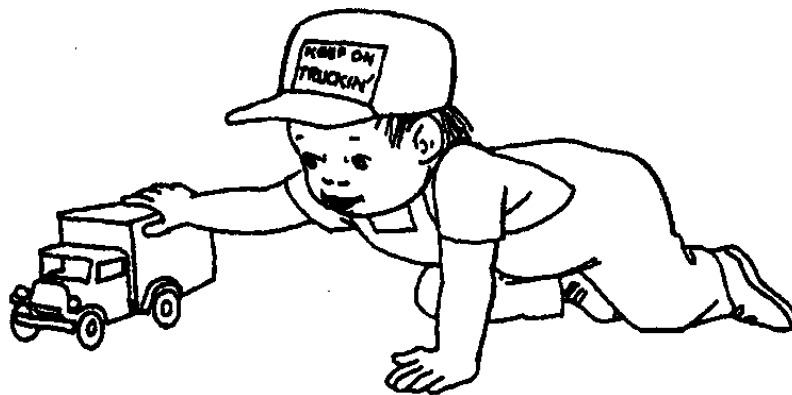
Children with PKU are unable to digest the amino acid, phenylalanine. Phenylalanine is found in high protein foods and foods that contain the non-caloric sweetener aspartame (NutraSweet).

Children with maple syrup urine disease or homocystinuria will have diets prescribed that limit certain amino acids.

Children who suffer from galactosemia cannot digest galactose, which is found in milk products. Milk, milk products and other foods that contain galactose should be eliminated from the diet.

A child whose disability restricts his or her diet shall be provided food substitutions only when supported by a statement signed by a licensed physician. The supporting statement shall identify: the individual's disability and an explanation as to why the disability restricts the child's diet; the major life activity affected by the disability; the food or foods to be omitted from the child's diet; and the food or choice of foods that must be substituted. Such meals or snacks shall be claimed at the same reimbursement rate as meals/snacks which meet the meal pattern. The services of a registered dietitian can be utilized to assist in implementing the physician's prescription.

For more information about meeting children's special food and nutrition needs in Child Nutrition Programs, visit the resources available from the National Food Service Management Institute at <http://nfsmi-web01.nfsmi.olemiss.edu/ResourceOverview.aspx?ID=89>.



Formation of Eating Habits

Eating habits are formed during the early childhood years and last a lifetime. Good eating habits do not just happen; they must be learned. Presenting children with nutritious foods and limiting their access to “empty calorie” foods can help children learn to make nutritionally sound food choices.

It is important that mealtime be a happy time. Pleasant eating experiences can lead to positive attitudes about food and eating.

- Try to understand each child’s personality and reaction to foods.
- Encourage children to do as much as possible for themselves. First efforts are an important step toward growth.

Children may be in no hurry to eat once the first edge is taken off their hunger. Urging children to “hurry up” may spoil their pleasure of eating.

Introducing New Foods

- Introduce only one new food at a time, Offer a very small amount of the new food at first, so that a child learns new flavors and textures. It is best to offer a new food at the beginning of the meal when children are hungry. Also, allow children plenty of time to look at and examine foods.
- Do not introduce a new food to a child who does not feel well or is irritable.
- If you offer a new food and children turn it down, do not make a fuss. Offer the food again a few days later.
- If children accept a new food, let them try it again soon so they become accustomed to it.



Encouraging Favorable Food Attitudes and Good Eating Habits

- Serve meals in a bright and attractive room.
- Use tables, chairs, dishes, glasses, silverware and serving utensils that suit young children.
- Provide a quiet time just before meals so that the atmosphere can be friendly and relaxed at mealtime.

- Encourage children to help by setting the table, bringing food to the table or clearing and cleaning the table after eating.
- Select and arrange food on plates to make meals interesting and attractive. Include a variety of colors, flavors, textures, shapes and temperatures.
- Do not encourage the “clean plate” ideal. Children may learn to overeat if they are told to finish their meals or clean their plates too often.
- Do not allow children to use food to gain attention.
- Do not use food as a reward and punishment (Do not ask children to eat vegetables so they can have dessert).
- Do not withhold food for punishment.

Nutrition Education

Teaching nutrition and healthy food practices is most effective when it is part of other learning experiences. Learning is reinforced when children have an opportunity to practice or visualize what is taught.

Here are some nutrition activities that children can do:

- Squeeze oranges and drink the juice for snacks. Roll the oranges on a hard surface, such as a table or counter before juicing.
- Mix a variety of fruits together to make a salad for lunch.
- Grow a potato in water to show how the plant grows from the stored food in the potato.
- Celebrate special occasions like Halloween by baking pumpkin muffins or Washington’s Birthday by preparing a cherry cobbler.
- Freeze juice in small paper cups to make “juice-sides.” Changes in texture, volume and consistency can be observed.
- Role-play in a supermarket setting. This could include selecting foods, putting foods in food groups and exchanging money tokens.

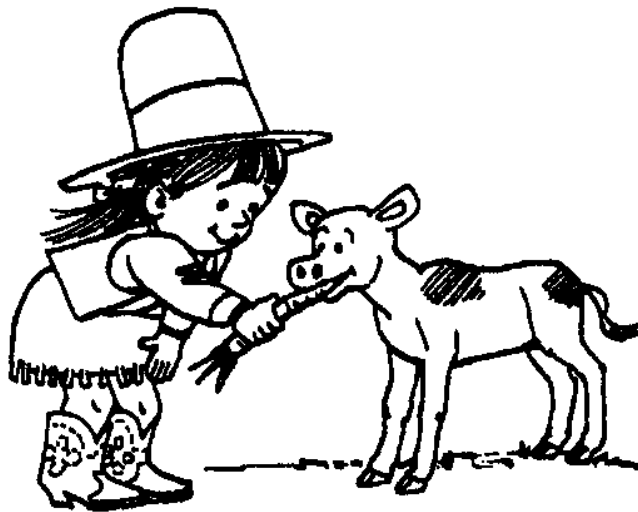
Children can learn about many cultural groups by sharing favorite family menus, recipes, special foods and traditions of their ethnic heritage.

- Children can share holiday traditions and special foods.

- Feature foods from different cultures throughout the year.

Children can learn many things from trips to farms, grocery stores, dairies, bakeries or food companies.

- On a trip to a farm, children can observe cows being milked and learn how milk gets from the farm to the container.
- At a bakery, children can learn how bread is made.



Questions and Answers

Q1. Due to its high fat and cholesterol content, should cheese be served to children?

A1. Cheese is a good source of protein, calcium and riboflavin. If cheese is served frequently, use low-fat cheese. Examples of low-fat cheeses include: mozzarella and ricotta made from part-skim milk, farmer cheese, feta and low-fat or reduced-fat American or cheddar. These usually contain 5 or 6 grams of fat per ounce. Low-fat cottage cheese made from 2% or 1% milk fat can also be served.

Q2. What is the difference between ice cream and frozen yogurt?

A2. Frozen yogurt is typically lower in fat and higher in protein than ice cream. Ice cream contains 10-18% fat or more by weight. Because there is no standard of identity for frozen yogurt, frozen yogurt can be found with varying levels of fat, sugar and other ingredients. Low-fat ice cream is another alternative to regular ice cream. Frozen yogurt and low fat ice cream are not necessarily lower in calories than regular ice cream. These frozen dairy products do not contribute toward any component of the Child and Adult Care Food Program meal pattern.

Q3. What is the difference between butter and margarine?

A3. Both margarine and butter get 100% of their calories from fat. Butter is a fat made from milk. Margarine is made from vegetable oil. Hydrogenation is the process of making it solid. Margarine may be liquid, soft or stick and has variation in the level of saturated, monounsaturated, polyunsaturated and *trans* fatty acids. Both butter and margarine supply the same number of calories per serving.

Q4. What types of desserts should be offered? How often should desserts be served?

A4. Only certain types of desserts are creditable in the Child and Adult Care Food Program. Fruits can be served as often as desired for dessert. Grain-based desserts such as cakes and cookies are not creditable in the CACFP as a dessert at lunch or supper. However, grain-based desserts may be served as a component for snacks. **It is recommended that cookies and other baked products be served for snacks no more than two times per week.**

Some desserts are high in sugar, fat and saturated fat, and should be served occasionally. For more information on the types of baked products that may be credited, refer to the section, "Crediting Foods."

Q5. How many calories are needed for a child?

A5. The average daily caloric need of children 4-6 years of age is 1600 calories, children 2-3 years old need about 1300 calories. A healthy diet including a variety of foods should provide sufficient calories.

Q6. How often can eggs be served to children?

A6. Avoid eggs in the first year of life because of the potential to create an allergy. It is recommended that egg yolks and whole eggs be served to children over one year of age occasionally. This includes eggs served plain and those used in baked or cooked products.

Q7. Can I serve chocolate milk to children?

A7. Chocolate milk may be served to children. Serve low-fat or fat-free varieties to children age two and older.

Q8. Can I serve water as the beverage at snack time?

A8. Yes, water can and should be offered as a beverage in addition to the required two snack components. Children need to be offered water throughout the day, and must be available for children at all times.

Q9. What are some healthy food choices that can be served when celebrating birthdays and other special occasions?

A9. Creditable foods, such as muffins, graham crackers, or quick breads, can be served as healthier alternatives to traditional goodies when celebrating special days.

Q10. Are there good and bad foods?

A10. Foods should not be identified as good or bad foods. The nutritional quality of a diet is not defined by any single food, but rather by the variety and quantity of food eaten during each day.

Q11. What advice can be provided to parents who request a vegetarian diet for children?

A11. Parents should be cautioned that unless the vegetarian diet is carefully planned, essential nutrients may not be supplied in quantities necessary to support growth and development. More detailed information on vegetarian diets is provided earlier in this section.